

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-9. (Canceled)

10. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:

processing a first laser beam with a wavelength of visible light or a shorter wavelength than visible light into a long beam at a surface of a semiconductor film or a vicinity thereof; and

crystallizing the semiconductor film by irradiating a region of the surface with a second laser beam of a fundamental wave and the long beam at the same time to a region of the surface while moving the surface ~~relatively with respect~~ relative to the long beam ~~in a direction~~,

wherein the first laser beam is a harmonic wave of a solid laser, and

wherein the second laser beam is emitted from a continuous wave solid laser and the second laser beam is absorbed in the semiconductor film which is melted by the long beam.

11. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:

processing a first laser beam with a wavelength of visible light or a shorter wavelength than visible light into a long beam at a surface of a semiconductor film or a vicinity thereof; and

activating an impurity region formed in the semiconductor film by irradiating a region of the surface with a second laser beam of a fundamental wave and the long beam at the same time ~~to a region of the surface~~ while moving the surface ~~relatively with respect~~ relative to the long beam ~~in a direction~~,

wherein the first laser beam is a harmonic wave of a solid laser, and

wherein the second laser beam is emitted from a continuous wave solid laser and the second laser beam is absorbed in the semiconductor film which is melted by the long beam.

12. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor layer over a substrate;

forming an insulating layer for covering a top surface and side surface of the semiconductor layer;

forming a conductive layer over the semiconductor layer with the insulating layer interposed therebetween;

processing a first laser beam with a wavelength of visible light or a shorter wavelength than visible light into a long beam at an irradiated surface of the conductive layer or a vicinity thereof; and

heating the conductive layer selectively to perform heat treatment of the semiconductor layer and the insulating layer by irradiating a region of the irradiated surface with a second laser beam of a fundamental wave and the long beam at the same time ~~to a region of the irradiated surface~~ while moving the irradiated surface ~~relatively in a direction with respect~~ relative to the long beam,

wherein the first laser beam is a harmonic wave of a solid laser, and

wherein the second laser beam is emitted from a continuous wave solid laser and the second laser beam is absorbed in the semiconductor film which is melted by the long beam.

13. (Currently Amended) A method for manufacturing a semiconductor device according to claim 10, wherein ~~each of the first and second~~ laser beam is emitted from a continuous wave solid laser.

14. (Previously Presented) A method for manufacturing a semiconductor device according to claim 10, wherein each of the first and second laser beam is emitted from one selected from the group consisting of YAG laser, YVO₄ laser, YLF laser, YAlO₃ laser, ruby laser, and alexandrite laser.

15. (Currently Amended) A method for manufacturing a semiconductor device according to claim 11, wherein ~~each of the first and second~~ laser beam is emitted from a continuous wave solid laser.

16. (Previously Presented) A method for manufacturing a semiconductor device according to claim 11, wherein each of the first and second laser beam is emitted from one selected from the group consisting of YAG laser, YVO₄ laser, YLF laser, YAlO₃ laser, ruby laser, and alexandrite laser.

17. (Currently Amended) A method for manufacturing a semiconductor device according to claim 12, wherein ~~each of the first and second~~ laser beam is emitted from a continuous wave solid laser.

18. (Previously Presented) A method for manufacturing a semiconductor device according to claim 12, wherein each of the first and second laser beam is emitted from one selected from the group consisting of YAG laser, YVO₄ laser, YLF laser, YAlO₃ laser, ruby laser, and alexandrite laser.

19. (Canceled)

20. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:

processing a first laser beam with a wavelength of visible light or a shorter wavelength than visible light into a long beam at a surface of a semiconductor film or a vicinity thereof; and

crystallizing the semiconductor film by irradiating a region of the surface with a second laser beam of a fundamental wave and the long beam ~~to a region of the surface~~ while moving the surface ~~relatively with respect~~ relative to the long beam ~~in a direction~~,

wherein the long beam is overlapped with the second laser beam at the region,

wherein the first laser beam is a harmonic wave of a solid laser, and

wherein the second laser beam is emitted from a continuous wave solid laser and the second laser beam is absorbed in the semiconductor film which is melted by the long beam.

21. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:

processing a first laser beam with a wavelength of visible light or a shorter wavelength than visible light into a long beam at a surface of a semiconductor film or a vicinity thereof; and

activating an impurity region formed in the semiconductor film by irradiating a region of the surface with a second laser beam of a fundamental wave and the long beam at the same time ~~to a region of the surface~~ while moving the surface ~~relatively with respect~~ relative to the long beam ~~in a direction~~,

wherein the long beam is overlapped with the second laser beam at the region,

wherein the first laser beam is a harmonic wave of a solid laser, and

wherein the second laser beam is emitted from a continuous wave solid laser and the second laser beam is absorbed in the semiconductor film which is melted by the long beam.

22.-23. (Canceled)

24. (Currently Amended) A method for manufacturing a semiconductor device according to claim 20, wherein ~~each of the first and second~~ laser beam is emitted from a continuous wave solid laser.

25. (Previously Presented) A method for manufacturing a semiconductor device according to claim 20, wherein each of the first and second laser beam is emitted from one selected from the group consisting of YAG laser, YVO₄ laser, YLF laser, YAlO₃ laser, ruby laser, and alexandrite laser.

26. (Currently Amended) A method for manufacturing a semiconductor device according to claim 21, wherein ~~each of the first and second~~ laser beam is emitted from a continuous wave solid laser.

27. (Previously Presented) A method for manufacturing a semiconductor device according to claim 21, wherein each of the first and second laser beam is emitted from one selected from the group consisting of YAG laser, YVO₄ laser, YLF laser, YAlO₃ laser, ruby laser, and alexandrite laser.

28. (Previously Presented) A method for manufacturing a semiconductor device according to claim 10, wherein the second laser beam is longer than the long beam at the surface.

29. (Previously Presented) A method for manufacturing a semiconductor device according to claim 11, wherein the second laser beam is longer than the long beam at the surface.

30. (Previously Presented) A method for manufacturing a semiconductor device according to claim 12, wherein the second laser beam is longer than the long beam at the irradiated surface.

31. (Previously Presented) A method for manufacturing a semiconductor device according to claim 20, wherein the second laser beam is longer than the long beam at the surface.

32. (Previously Presented) A method for manufacturing a semiconductor device according to claim 21, wherein the second laser beam is longer than the long beam at the surface.

33.-37. (Canceled)

38. (Previously Presented) A method for manufacturing a semiconductor device according to claim 12, wherein the substrate is a glass substrate.